

Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.

SOIL CONSERVATION SERVICE

NEWS

REGION 4

Comprising States of Louisiana, Arkansas,
Oklahoma and Texas, except High Plains Area

REGIONAL OFFICE--FORT WORTH, TEXAS



VOL. V

OCTOBER 1939

No. 10

CONSERVATION SURVEYS

By R. M. Marshall, Soil Scientist

The conservation survey showing the existing physical factors of the land is the basis for all land use planning. The mapping of individual soil types, slope groups, erosion classes and present land cover involves complex delineations, since a change in soil type, slope or degree of erosion necessitates a separate delineation. The mapping of such a number of factors results in a rather complex map, especially for persons not trained to work with the conservation survey.

In the past, the soil technicians prepared a variety of land use and treatment recommendations for use by the planning technicians in working out plans for complete soil and water conservation and proper land use. Some used colored maps, others used symbols on the copy of the conservation survey, and still others used a narrative form of recommendation either singly or in combination with maps. The results obtained were about the same.

The advance and coordination in all kinds of agricultural programs demanded that a survey, to be of utmost value, be made in such a simple form that all agencies interested in land use planning would readily understand its application. Much effort and work on the problem produced what are now called "land use capability tables." These tables consist of a grouping of the various factors in the conservation survey into five classes in cultivated areas. These indicate the most intensive tillage that can be practiced safely with permanent maintenance of the soil. In areas where cultivation is not practiced, four classes have been set up representing

the most intensive utilization of the land for range or forestry consistent with the preservation of the soil and its plant cover.

Classes of land according to use capability are determined entirely on the basis of the physical characteristics of the land. The economic and social conditions affecting the land in question are given consideration later in the application of these land use capability tables in farm planning. In a complete plan for a coordinated soil and water conservation program and proper land use, the ultimate treatment of each parcel of land may vary some from the use capability designated on the conservation survey map. This is to be expected because land falling in land capability Class I, which is the best land on the farm, may be in timber or grass and will not necessarily be cleared and cultivated just because it is Class I land. Similar applications may be made to the other land falling within any of the other land use capability classes.

The use of land capability tables in the region is becoming greater every day and efforts are being made to have land use capability tables set up and approved for every work unit as soon as possible.

These tables are made more usable when accompanied by definite crop, soil amendment, and treatment recommendations worked out by the various technicians by land use capability classes and soil groups.

Eventually the published conservation survey map will be a land use capability map in colors, with the physical data of soil type, slope, degree of erosion and present land cover in the background. Such a map, properly interpreted through the medium of land use capabilities, will be simple to interpret and be of the utmost value to all interested in land use planning.

--SCS--

BERMUDA GRASS IS POPULAR IN WESTERN OKLAHOMA AREA

Bermuda grass is controlling erosion effectively, utilizing formerly idle land and in many instances helping to provide a new source of farm income in the Elk Creek Demonstration Project of the Soil Conservation Service at Elk City, Okla., according to Marshall H. Jordan, project conservationist.

More than 1,000 acres have been placed in Bermuda grass in the project area since 1935. The grass has been found satisfactory in terrace outlet channels, in meadow waterways, and in lowland pastures, Mr. Jordan said.

On the farm of C. A. Martin, 19.5 acres of Bermuda grass receives the drainage water from about 150 acres and, with a supplemental pasture of 10 acres of Sudan grass, provides more than enough forage for 10 cattle

and eight horses. Mr. Martin has been able to defer grazing on 40 acres of pasture, in which the native pasture plants are returning.

As a result of the sale of cream and registered calves, Mr. Martin will receive a gross return of about \$18 per acre from the 19.5 acres of Bermuda grass and the 10 acres of Sudan grass this year, he estimated. Eight acres of the land now in Bermuda grass formerly were idle, lying in and adjacent to a natural drain.

J. A. Foster, who soded a 10-acre drain to Bermuda grass in 1937 to carry excess terrace water from his farm and from that of a neighbor, declared that he received more benefit from the grass than from "a barn filled with feed."

This 10-acre tract had been waste land before it was placed in Bermuda grass. Last summer he pastured seven head of cattle and seven head of horses on eight acres of the Bermuda grass. On the remainder of the tract, which was not grazed, some Bermuda grass grew waist high despite an unusually dry summer.

L. A. (Bert) Taylor, a supervisor of the North Fork of Red River Soil Conservation District, said he had received a return ranging from \$3.20 to \$6 per acre for six months of grazing on 25 acres of land which was retired from cultivation to Bermuda grass. His neighbors pay him \$1.50 per month per head to pasture their horses on the grass. In 1938, there were 18 horses on this grass for six months. This year there was an average of 10 horses grazing this pasture at all times during a six-month period.

"Of course there's no erosion on this pasture land," Mr. Taylor declared. "It's paying me a much bigger profit than it did in cultivation."

On the S. L. Simpkins farm, 21 acres of Bermuda and four acres of native grass carried five sheep, 25 cows, five calves and one horse from April to October. No supplemental feed was necessary to keep the livestock in good condition, Mr. Jordan said.

"Farmers in the project area are fortunate in having a soil in which Bermuda grass grows well," the project conservationist said. "The grass is now showing that it will grow farther up the hill sides than we would have believed when we first began to sod Bermuda grass in the project area."

The average rainfall in the Elk City section is approximately 22 inches.

DISTRICT AGREEMENTS COVER 187,365 ACRES IN OKLAHOMA

As of October 1, 1,053 farmers who own or operate 187,365 acres of land lying in 17 soil conservation districts in Oklahoma had entered into agreements with their respective boards of supervisors and had installed or were installing complete conservation systems on their farms and ranches.

Two other districts recently entered into memoranda of understanding with the Department of Agriculture making it possible for Soil Conservation Service technicians to assist farmers in the planning and application of conservation systems but had not started actual operations work on October 1.

The monthly progress report of Oklahoma districts also showed that 3,274 farmers in the districts had made application to their supervisors for assistance in planning a conservation program for their farms.

On October 1, Service technicians had completed conservation surveys on 2,088,537 acres in Oklahoma districts.

In addition to the land already covered by agreements it was reported that conservation plans had been completed on 44 farms covering 6,924 acres and farm plans were nearing completion for 303 other farms embracing a land area of 54,746 acres.

During the month of September, 73 educational meetings in districts were attended by 9,699 persons. Approximately 320 farmers attended 23 meetings which were called to assist landowners in planning and installing conservation practices on their farms.

The following tabulation lists the applications for assistance received from farmers, the number of agreements signed and the acreage covered by agreements for the month of September, listed by districts:

<u>DISTRICT</u>	<u>APPLICATIONS</u>	<u>AGREEMENTS</u>	<u>ACREAGE</u>
Arkansas-Vordigris	330	148	22,295
Garvin Murray	332	79	15,169
McIntosh	244	98	17,961
Upper Washita	216	104	29,272
Kiamichi	265	77	11,437
Konawa	354	106	13,684
East Central	300	175	22,597
North Fork of Red River	173	69	15,960
Cottonwood	87	26	3,918
Stephens County	149	54	15,192
Farm Security	171	20	4,397
Jackson County	140	29	6,297
Canadian Walnut	76	13	2,710
Central North Canadian	15	8	1,080
Muskogee-Oklazulgee	136	28	1,486
Northern Hughes	47	15	2,730
Harper County	50	4	1,280
Verdi-Grand	9	0	0

JAMAICAN STUDIES SCS METHODS

Christopher Swabey, colonial forester stationed in Jamaica, British West Indies, spent five days in the Western Gulf Region in October observing coordinated soil and water conservation practices used in state soil conservation districts and in Soil Conservation Service projects and CCC camps.

Homer C. Hitchell, regional forester, accompanied Mr. Swabey on the tour.

When Mr. Swabey reached Fort Worth, he already had observed conservation methods in 25 states. The information he obtains in the United States will be used in developing a soil and water conservation program for Jamaica, which, he said, has a rainfall ranging from 20 to 200 inches annually.

-SCS-

PROGRESS IN ARKANSAS DISTRICTS LISTED

With the assistance of the 14 soil conservation districts in Arkansas, 2,560 farmers on October 1 were establishing complete soil and water conservation systems on 346,348 acres, Glenn E. Riddell, state coordinator, announced after compiling reports from the districts.

In addition to the 2,560 agreements accepted by the 14 districts, 119 farm plans covering 14,857 acres had been completed and presented to farmers for their signatures. A total of 164 farm plans, for 29,745 acres, were being prepared on the first of this month, Mr. Riddell said.

The Arkansas districts have received applications from 5,022 farmers who wish help in conserving their resources of soil, water, timber and wildlife.

Mobile survey crews on Oct. 1 had completed conservation surveys on 2,138,597 acres in Arkansas, according to Riddell's compilation.

Seventy-nine educational meetings, which drew an attendance of 6,255 persons, were conducted in the 14 districts during September. In addition, 35 meetings to discuss planning and execution of programs were held with a total of 478 farmers.

-SCS-

CHIEF'S RADIO TALK DEALS WITH CONSERVATION IN THE GREAT PLAINS

"In the years since the last war, millions of dollars have been spent trying to repair the damage caused by the last plow-up of the Great Plains," Dr. Hugh Hammond Bennett, Chief of the Soil Conservation Service, declared in his radio address during the National Farm and Home Hour, September 29.

"Much good work has been done, and substantial recovery has been made in many localities," the Chief reported. "We have learned definitely that wind erosion can be controlled. We also have learned, among other things, that conservation measures and wise land use in the Plains will pay dividends, and maintain the farm plant against erosion.

"I am sure," he said, "that farmers will be guided by this experience, and will not repeat the mistakes of 20 years ago when land unsuited to plowing was ripped open and exposed to wind erosion."

Dr. Bennett declared there was no question but that improved moisture conditions earlier in the year contributed to better yields in 1939.

"But increased rainfall does not tell the full story," he said. "Improved farm practices have played an important part in the betterment of farm conditions in both the Northern and Southern Plains: Contour cultivation, strip cropping, level terracing, the preservation of crop stubble to hold the soil, the retirement of highly erodible areas from cultivation, and other conservation measures, have all done their part."

The Chief said that farmers and others are learning a lot about the Plains.

"They are learning, for example, that farming should be guided to a much greater degree by the character of the land, as shown by surveys, so that wheat will be planted only on land adapted to wheat. They are learning that even on good wheat land, wheat should not be planted unless there is sufficient moisture in the soil at seeding time to promise a crop. When there isn't enough moisture for wheat, grain sorghums planted on the contour will often bring a good return. If it turns too dry, they will at least produce feed for livestock and enough cover to hold the soil.

"We also are learning that grass should be restored and maintained on sandy soils, because sandy soils are very likely to blow unless they are securely tied down with vegetation. Troublesome sand dunes are still developing in some parts of the plains where conservation measures have not been carried out," he continued.

In closing his discussion, Dr. Bennett declared that "it would indeed be a national tragedy, and a calamity to the Plains, if on a long shot possibility, farmers decided to gamble again with nature, plow up the grasslands that are subject to blowing -- and lose their gamble."

LOUISIANA FARMERS TAKING PROGRESS IN DISTRICTS

Eight Louisiana soil conservation districts on October 1 had entered into agreements with 707 farm owners controlling 141,276 acres, according to a report compiled by Guy Fletcher, state coordinator for the Soil Conservation Service in Louisiana.

At that time these districts had received 2,335 applications from land owners who asked assistance in establishing complete conservation systems on 539,785 acres.

In addition to the 707 farms taken under agreement, the districts were preparing farm plans on 121 additional units covering 26,065 acres.

During September, Fletcher's report said, a total of 56 educational meetings drawing an attendance of 1,479 persons were conducted.

The following tabulation shows the number of applications for agreements and the number of agreements taken by each of the eight districts:

DISTRICT	REQUESTS	ACREAGE	AGREEMENTS	ACREAGE
Feliciana	183	114,139	96	32,571
D'Arbonne	426	70,880	186	25,751
Dorchest	263	47,749	148	23,594
Upper Sabine	481	81,555	104	25,276
Upper West Red	163	53,932	40	13,086
Saline	423	90,002	107	13,275
Dagdomonia	99	14,385	23	2,509
Bogue Chitto-Pearl River	292	57,143	3	214

According to the compilation by the state coordinator, conservation surveys had been completed on 336,090 acres in the districts.

-scs-

NATIONAL PROGRESS IN DISTRICTS

As of October 1, more than 143 soil conservation districts organized in 25 states had entered into memoranda of understanding with the Department of Agriculture making it possible for Soil Conservation Service technicians to assist in the development of erosion control programs. Districts have been organized in two other states and districts laws have been enacted in nine other states.

Recent reports show that farm plans have been worked out for 7,000 farms covering 2,000,000 acres in 130 districts.

-scs-

SCS WORK COVERS 48,000,000 ACRES

A report prepared by the Records and Statistics Section of the Soil Conservation Service in Washington disclosed that on June 30, 1939, the Service and state soil conservation districts had entered into 81,145 cooperative agreements, detailed operations plans and working agreements covering 48,176,971 acres.

Of these totals there were 26,138 agreements and 9,326,517 acres in demonstration and watershed projects, 45,238 agreements and 9,486,792 acres in CCC camp areas, 6,856 agreements and 1,328,345 acres in soil conservation districts, 105 detailed operations plans and 7,460,395 acres in land utilization projects, 1,607 working agreements and 1,311,448 acres in Extension Service-Soil Conservation Service farm demonstrations, 78 agreements and 17,951,612 acres on public lands, 345 agreements and 209,346 acres in water facilities projects and 1,056 other type agreements on 602,514 acres.

In the totals by regions, the Western Gulf Region ranks high. It is first in CCC camp agreements (11,382 agreements and 1,966,430 acres), and it is second in demonstration and watershed project agreements (5,123 agreements covering 689,921 acres), in soil conservation district agreements (2,654 agreements on 384,059 acres), in water facilities agreements (115 agreements on 25,724 acres), in Extension Service-Soil Conservation Service working agreements (324 agreements on 94,607 acres), and in total agreements (20,275 agreements on 3,504,356 acres).

Region 2, with headquarters at Spartanburg, S. C., ranks first in demonstration and watershed project agreements, in soil conservation district agreements in Extension Service-Soil Conservation Service farm demonstrations, and in total agreements. Region 6, with headquarters in Amarillo, Tex., ranks first in water facilities agreements.

-scs-

CONSERVATION SURVEYS

Conservation surveys had been completed on 7,759 square miles (4,965,700 acres) in the soil conservation districts of Arkansas, Louisiana and Oklahoma on October 15. C. L. Orrben, chief of the Division of Physical Land Surveys, reported.

These surveys, taking an inventory of the land in the districts of the three states, are being made by mobile survey crews.

Mr. Orrben reported that the surveys in four Arkansas districts had been completed. These districts are Mine Creek, Magazine, Poteau River and Illinois Bayou.

The survey completions by states are as follows: Arkansas, 3,368 square miles or 2,155,520 acres in 14 districts; Louisiana, 775 square miles or 496,000 acres in eight districts; and Oklahoma 3,616 square miles or 2,314,240 acres in 19 districts.

-scs-

U.S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
OFFICE OF THE REGIONAL CONSERVATOR
REGION 4
Neil P. Anderson Building
Fort Worth, Texas

OFFICIAL BUSINESS

PENALTY FOR PRIVATE USE TO AVOID
PAYMENT OF POSTAGE \$300

Library Agricultural Economics
U. S. Department of Agriculture
Washington, D. C.